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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,800

07/24/2003

Raul Curbelo

15608

1426

23389

7590

11/17/2004

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EXAMINER

GABOR, OTILIA

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/626,800

**Applicant(s)**

CURBELO, RAUL

**Examiner**

Otilia Gabor

**Art Unit**

2878

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

***Response to Amendment***

1. The amendment filed 09/29/204 has been entered.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Haschberger et al. (U. S. Patent 6,147,762).

Haschberger et al. discloses an apparatus and method for acquiring interferogram data in a Fourier transform infrared spectrometer that provides an output signal that is corrected for non-linear distortions introduced by the detector. The measured interferogram, the measured spectrum, the linear interferogram, the linear spectrum as well as the measurement of coefficients are represented by power series and relationships and measuring steps as claimed in the present application.

Haschberger et al. discloses this correction method as applicable when any type of detector is used, and he mentions the MCT photovoltaic detector as one exemplary detector (see Col.1, lines 37-43). He also discloses the conventional measured interferogram collection as including the steps of collecting by an AC signal channel and a DC offset taking from the measured interferogram collected by a DC coupled signal channel (see prior art and U.S.Patent 4,927,269 disclosed in Cols.1 and 2).

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Haschberger et al. also discloses obtaining the coefficients of the expansion of the spectrum from a set of measurements selected from a spectra of the powers of the measured interferogram where  $S=0$  and also from additional spectral ranges, and uses the least square approximation.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-8, 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haschberger et al.

Regarding claim 12 Haschberg fails to explicitly disclose the presence of a reference radiation source, however this element is inherently present since he discloses that a reference spectrum is measured and the ratio of the measured and reference spectra is determined.

Regarding claims 6-8, 10, 11, 19-23 Haschberg fails to specifically disclose the claimed detectors, however, since the type of detector used is irrelevant to his correction process, any conventionally used detectors in the art can be used. As such, the method inherently applies when the detector is a single-point detector (see U. S. Patent 5,377,003), or a one-dimensional detector (see U.S. Patent 5,811,059), or a two-dimensional detector (see U. S. Patent 6,455,851), or a photovoltaic detector (see U. S.

Patent 5,581,085), or a photoconducting detector (see U. S. Patent 6,466,961), or a bolometric detector (see U. S. Patent 6,731,961).

### ***Response to Arguments***

6. Applicant's arguments filed 09/29/2004 have been fully considered but they are not persuasive. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., obtaining coefficients  $b_i$  to help identify and correct non-linearities) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The claims recite steps included in a method of acquiring interferogram data in a fourier transform spectrometer with no specific limitation as to what the claimed coefficients  $b_i$  are used for. Thus, any argument relating to the differences between the function of the claimed coefficients  $b_i$  and the prior art coefficients  $a_i$  has no patentable weight. Even if we consider the function of the claimed coefficient to be a positive limitation in the claim, the argument that the claimed coefficients are different than the prior art coefficients is not persuasive because, contrary to what the Applicant states the coefficients  $a_i$  are not used to determine the characteristic features of a distortion-free interferogram but instead the coefficients are determined with the use of these characteristic features (underline added for emphasis). See Col.3, lines 52-55. Additionally, the argument that the prior art reference requires a proportionality factor  $c$  which the current invention

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does not is not persuasive because unless the Applicant uses a limiting language in the claim whereby the claim is limited to only the enumerated elements, whether or not the prior art reference includes other elements besides the ones claimed has no influence on the rejection. Additionally, even though the reference contains this proportionality factor, its presence does not affect the calculation, for it is clearly stated in Col.4, lines 65-67 and Col.5, lines 1-3, that "no knowledge of the factor c is necessary". Therefore, the claims are still rejected as shown in detail above.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 571-272-2435.

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The examiner can normally be reached on Monday, Thursday-Friday between 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Otilia Gabor  
Examiner  
Art Unit 2878

A handwritten signature in black ink, appearing to read "Otilia Gabor", is written below the printed name.